IN THE CLAIMS:

Claims 1-31 (Canceled)

32. (Currently amended) A device to assist the function of a cardiac ventricle, the device comprising: a. a first magnet having an open center and formed of high ferromagnetic-constant material; b. a first vessel surrounding the first magnet and defining a space adapted to be in fluid communication with the blood flow output of the great vessel of a ~~the~~ diseased ventricle of a ~~the~~ patient using the device, the first magnet being movable within the first vessel in substantially fluid-tight relation thereto; c. a second magnet formed of high ferromagnetic-constant material and in magnetic communication with the first magnet so that the respective magnetic fluxes of the first magnet and the second magnet affect each other, so that the first magnet and the second magnet are biased toward and tend to lock to one another, to thereby move in the same direction as one another; d. a second vessel encasing the second magnet and defining a space, the second magnet being movable within the space in substantially fluid-tight relation to the second vessel, the space defined by the second vessel being in fluid communication with a hydraulic pump for actuating the second magnet; and e. an one-way valve connected to the first magnet, the one-way valve being movable with the first magnet, and adapted to cause movement of blood from the diseased ventricle to and into the great vessel associated with that diseased ventricle in a pulsatile manner.

33. (Original) The device of claim 32, wherein the device is a L-VAD and is sized and shaped for positioning between the aortic valve and the aortic arch of the patient using the device.

34. (Original) The device of claim 32, wherein the device is a R-VAD and is sized and shaped for positioning between the pulmonary valve and the bifurcation of the pulmonary trunk of the patient using the device.

35. (Currently amended) A device (58, 74) to assist the function of a cardiac ventricle, the device comprising: a. a first annular magnet (54) formed of high ferromagnetic-constant material; b. a first sleeve (68) surrounding the first annular magnet (54) and defining a space in fluid communication with the blood flow output great vessel of the patient using the device, the first annular magnet (54) being longitudinally and reciprocally slideable within the first sleeve in substantially fluid-tight

relation thereto; c. a second annular magnet (44) formed of high ferromagnetic-constant material and sized and shaped for placement exterior of the first sleeve (68), the second annular magnet (44) being disposed coaxially in relation to and in magnetic communication with the first annular magnet (54), so that the respective magnetic fluxes of the first magnet and the second magnet affect each other, so that the first annular magnet and the second annular magnet are biased toward and tend to lock to one another, and to thereby move in the same direction as one another; d. a second sleeve (72) encasing the second annular magnet (44), the second annular magnet being longitudinally and reciprocally slideable between the first sleeve (68) and the second sleeve in substantially fluid-tight relation to the first sleeve and the second sleeve, and the second sleeve (72) defining an annular space (86) radially outwardly of the first sleeve (68) for longitudinal travel therein of the second annular magnet (44), the annular space (86) being in fluid communication with a hydraulic pump for actuating the second annular magnet (44); and e. an one-way valve (70) connected to the first annular magnet (54) and disposed transversely in relation to the longitudinal axis of the first annular magnet (54), the one-way valve being movable with the first magnet, and closed when moving away from the origin of the valve annulus when the device is in normal use position, such that when the device is deployed in a patient, the device can ~~to thereby~~ cause blood of the patient to move out of a diseased ventricle and toward the great vessels associated with that diseased ventricle as the first annular magnet (54) moves in a direction toward the great vessels of the diseased ventricle due to magnetic flux of the second annular magnet, the one-way valve further being adapted to be open when moving in a direction away from the great vessels of the diseased ventricle, to thereby permit blood of the patient to flow through the one-way valve into the space defined by the first sleeve (68) when the second annular magnet moves away from the great vessels of the diseased ventricle.

36. (Original) The device of claim 35, wherein the entire device (58, 74) is of sufficiently small size and weight for placement in normal operative position between the valve annulus and at least a portion of the great vessels of the diseased ventricle of a patient using the device, to assist or replace the function of at least a portion of the diseased native heart.

37. (Original) The device of claim 35, wherein the device is a L-VAD and is sized and shaped for positioning between the aortic valve and the aortic arch of the patient using the device.

38. (Original) The device of claim 35, wherein the device is a R-VAD and is sized and shaped for positioning between the pulmonary valve and the bifurcation of the pulmonary trunk of the patient using the device.

39. (Original) A system for assisting cardiac ventricular function, the system comprising a hydraulic pumping assembly and a cardiac ventricular assist device in fluid communication with the hydraulic pumping assembly, wherein the ventricular assist device comprises: a. a first magnet having an open center and formed of high ferromagnetic-constant material; b. a first vessel surrounding the first magnet and defining a space in fluid communication with the blood flow output great vessel of the diseased ventricle of the patient using the device, the first magnet being movable within the first vessel in substantially fluid-tight relation thereto; c. a second magnet formed of high ferromagnetic-constant material and being in magnetic communication with the first magnet, so that the respective magnetic fluxes of the first magnet and the second magnet affect each other, so that the first magnet and the second magnet are biased toward and tend to lock to one another, to thereby move in the same direction as one another; d. a second vessel encasing the second magnet and defining a space, the second magnet being movable within the space in substantially fluid-tight relation to the second vessel, the space defined by the second vessel being in fluid communication with a hydraulic pump for actuating the second magnet; and e. an one-way valve connected to the first magnet, the one-way valve being movable with the first magnet, and adapted to cause movement of blood from the diseased ventricle to and into the great vessel associated with that diseased ventricle.

40. (Original) The system of claim 39, wherein the ventricular assist device is a L-VAD and is sized and shaped for positioning between the aortic valve and the aortic arch of the patient using the device.

41. (Original) The device of claim 39, wherein the ventricular assist device is a R-VAD and is sized and shaped for positioning between the pulmonary valve and the bifurcation of the pulmonary trunk of the patient using the device.

42. (Currently amended) A system for assisting cardiac ventricular function, the system comprising a hydraulic pumping assembly and a cardiac ventricular assist device in fluid communication with

the cardiac ventricular assist device, wherein the ventricular assist device comprises: a. a first annular magnet (54) formed of high ferromagnetic-constant material; b. a first sleeve (68) surrounding the first annular magnet (54) and defining a space in fluid communication with the blood flow output great vessel of the diseased ventricle of the patient using the device, the first annular magnet (54) being longitudinally and reciprocally slideable within the first sleeve in substantially fluid-tight relation thereto; c. a second annular magnet (44) formed of high ferromagnetic-constant material and sized and shaped for placement exterior of the first sleeve (68), the second annular magnet (44) being disposed coaxially in relation to and in magnetic communication with the first annular magnet (54), so that the respective magnetic fluxes of the first magnet and the second magnet affect each other, so that the first annular magnet and the second annular magnet are biased toward and tend to lock to one another, and to thereby move in the same direction as one another; d. a second sleeve (72) encasing the second annular magnet (44), the second annular magnet being longitudinally and reciprocally slideable between the first sleeve (68) and the second sleeve in substantially fluid-tight relation to the first sleeve and the second sleeve, and the second sleeve (72) defining an annular space (86) radially outwardly of the first sleeve (68) for longitudinal travel therein of the second annular magnet (44), the annular space (86) being in fluid communication with a hydraulic pump for actuating the second annular magnet (44); and e. an one-way valve (70) connected to the first annular magnet (54) and disposed transversely in relation to the longitudinal axis of the first annular magnet (54), the one-way valve being movable with the first magnet, and closed when moving away from the origin of the valve annulus when the device is in normal use position, such that when the system is deployed in a patient, the system can ~~to thereby~~ cause blood of the patient to move out of a diseased ventricle and toward the great vessels associated with that diseased ventricle as the first annular magnet (54) moves in a direction toward the great vessels of the diseased ventricle due to magnetic flux of the second annular magnet, the one-way valve further being adapted to be open when moving in a direction away from the great vessels of the diseased ventricle, to thereby permit blood of the patient to flow through the one-way valve into the space defined by the first sleeve (68) when the second annular magnet moves away from the great vessels of the diseased ventricle.

43. (Original) The system of claim 42, wherein the entire device (58, 74) is of sufficiently small size and weight for placement in normal operative position between the valve annulus and the great

vessels of the diseased ventricle of a patient using the device, to assist or replace the function of at least a portion of the diseased native heart.

44. (Currently amended) A system for assisting cardiac ventricular function, the system comprising a hydraulic pumping assembly and a cardiac ventricular assist device (VAD) in fluid communication with the hydraulic pumping assembly, wherein the hydraulic pumping assembly comprises: a. an encapsulated hydraulic pump having: a pumping chamber for retaining hydraulic fluid therein, the pumping chamber having opposed first and second ends; at least one electromagnetic coil surrounding the pumping chamber; a substantially solid high ferromagnetic-constant magnet disposed longitudinally, slideably and reciprocally within the pumping chamber to act as a piston for driving hydraulic fluid within the pumping chamber in response to signals from a battery/controller assembly; b. a fluid line having a first end and a second end, the first end of the fluid line being connected to and in fluid communication with an the first end of the pumping chamber and the second end of the fluid line being connected to and in fluid communication with the second end of the pumping chamber, the VAD being in fluid communication with the fluid line at a point on the fluid line after the point of connection of the check valve and before the connection of the second end of the fluid line and the second end pump chamber; and c. a battery/controller assembly operatively connected to the check valve and to the at least one electromagnetic coil to provide electric power and control signals to the pump, wherein the battery controller assembly is capable of being placed in electrical communication with a ~~the~~ native heart of a ~~the~~ patient using the system, to thereby receive a signal ~~signals~~ corresponding to a physiological parameter ~~parameters~~ from the native heart.

45. (Original) The system of claim 44, wherein the hydraulic pumping assembly further comprises a first end cap and a second end cap connected at opposed first and second ends of the pumping chamber, the first end cap and the second end cap each having an aperture in fluid communication with a hydraulic fluid line.

46. (Original) The system of claim 45, and further comprising a check valve operatively connected in the fluid line between the connection of the first end of the fluid line and the second end of the fluid line to the first and second ends of the pumping chamber, respectively and the fluid line being

in fluid communication with the VAD, after the point of connection of the check valve and before the connection of the second end of the fluid valve and the second end cap of the pump cylinder.

47. (Currently amended) The system of claim 45, wherein the signal corresponding to a physiological parameter from the native heart ~~information received from the native heart by the battery/controller assembly~~ is at least a portion of an ECG signal from the patient.

48. (Currently amended) The system of claim 45, wherein the signal corresponding to a physiological parameter from the native heart ~~information received from the native heart by the battery/controller assembly~~ is blood pressure information.

49. (Currently amended) The system of claim 45, wherein the signal corresponding to a physiological parameter from the native heart ~~information received from the native heart by the battery/controller assembly~~ is blood volume information.

50. (Original) The system of claim 45, wherein the at least one electromagnet coil is three electromagnetic coils disposed longitudinally and coaxially adjacent to one another along the length of the hydraulic pump.

51. (Currently amended) A system for assisting cardiac ventricular function, the system comprising a hydraulic pumping assembly and a cardiac ventricular assist device (VAD) in fluid communication with the hydraulic pumping assembly, wherein the hydraulic pumping assembly comprises: a. a hydraulic pump (42) having: at least one electromagnetic coil (46, 48, 50) encapsulated so as to be fluid-tight, and defining a pumping chamber for retaining hydraulic fluid (52) therein, the pumping chamber having first and second opposed ends; a first end cap (56) and a second end cap (57) connected at opposed first and second ends of the pumping chamber, respectively, the first end cap and the second end cap each having an aperture in fluid communication with a hydraulic fluid line, a substantially solid high ferromagnetic-constant magnet (40) disposed longitudinally, slideably and reciprocally within the pumping chamber to act as a piston for driving hydraulic fluid within the pumping chamber in response to signals from a batter/controller assembly; b. a fluid line (59, 60)having a first end and a second end, the first end of

the fluid line being connected to and in fluid communication with an aperture in the first end cap and the second end of the fluid line being connected to and in fluid communication with an aperture in the second end cap, and the VAD being in fluid communication with the hydraulic pumping assembly at a point on the fluid line between the first end and the second end of the fluid line; c. a check valve (84) operatively connected in the fluid line between the connection of the first end of the fluid line and the second end of the fluid line to the first and second end caps respectively, and the fluid line being in fluid communication with the VAD, after the point of connection of the check valve and before the connection of the second end of the fluid valve and the second end cap of the pump cylinder; d. a battery/controller assembly (65) operatively connected to the check valve and to the at least one electromagnetic coil to provide electric power and control signals to the pump, wherein the battery/controller ~~the battery controller~~ assembly is capable of being placed in electrical communication with a ~~the~~ native heart of a ~~the~~ patient using the system, to thereby receive electronic information, including at least portions of ECG signals, blood pressure signals and/or blood volume signals, from the native heart.

52. (Currently amended) The system of claim 51, wherein the battery controller assembly and the hydraulic pump are of sufficiently small size and weight to be capable of being entirely contained within the abdominal cavity of the patient using the system and the VAD is of sufficiently small size and weight to be entirely contained within the chest cavity of the patient using the system, and the complete system, including all wires and hydraulic fluid lines, is capable of being entirely contained within the body of the patient using the system, so that there is no part of the system extending exterior of the skin of a patient using the system when the system is in normal use position in the patient.

53. (Currently amended) A system for assisting cardiac ventricular function, the system comprising: a hydraulic pumping assembly and a cardiac ventricular assist device in fluid communication with the hydraulic pumping assembly ~~cardiac ventricular assist device~~, wherein (a) the ventricular assist device comprises: (i) ~~a.~~ a first annular magnet (54) formed of high ferromagnetic-constant material; (ii) ~~b.~~ a first sleeve (68) surrounding the first annular magnet (54) and defining a space which is capable of being in fluid communication with the blood flow output of a great vessel of a diseased ventricle of a ~~the~~ patient using the device, the first annular magnet (54) being longitudinally and

reciprocally slideable within the first sleeve in substantially fluid-tight relation thereto; (iii) ~~c.~~ a second annular magnet (44) formed of high ferromagnetic-constant material and sized and shaped for placement exterior of the first sleeve (68), the second annular magnet (44) being disposed coaxially in relation to and in magnetic communication with the first annular magnet (54), so that the respective magnetic fluxes of the fist magnet and the second magnet affect each other, so that the first annular magnet and the second annular magnet are biased toward and tend to lock to one another, and to thereby move in the same direction as one another; (iv) ~~d.~~ a second sleeve (72) encasing the second annular magnet (44), the second annular magnet being longitudinally and reciprocally slideable between the first sleeve (68) and the second sleeve in substantially fluid-tight relation to the first sleeve and the second sleeve, and the second sleeve (72) defining an annular space (86) radially outwardly of the first sleeve (68) for longitudinal travel therein of the second annular magnet (44), the annular space (86) being in fluid communication with a hydraulic pump for actuating the second annular magnet (44); and (v) ~~e.~~ an one-way valve (70) connected to the first annular magnet (54) and disposed transversely in relation to the longitudinal axis of the first annular magnet (54), the one-way valve being movable with the first magnet, and closed when moving away from the origin of the valve annulus when the device is in normal use position, such that when deployed in the patient, the device can ~~to thereby~~ cause blood of the patient to move out of a diseased ventricle and toward the great vessels associated with that diseased ventricle as the first annular magnet (54) moves in a direction toward the great vessels of the diseased ventricle due to magnetic flux of the second annular magnet, the one-way valve further being adapted to be open when moving in a direction away from the great vessels of the diseased ventricle, to thereby permit blood of the patient to flow through the one-way valve into the space defined by the first sleeve (68) when the second annular magnet moves away from the great vessels of the diseased ventricle; and further wherein (b) the hydraulic pumping assembly comprises: (i) ~~a.~~ a hydraulic pump (42) having: at least one electromagnetic coil (46, 48, 50) encapsulated so as to be fluid-tight, and defining a pumping chamber for retaining hydraulic fluid (52) therein, the pumping chamber having first and second opposed ends; a first end cap (56) and a second end cap (57) connected at opposed first and second ends of the pumping chamber, respectively, the first end cap and the second end cap each having an aperture in fluid communication with a hydraulic fluid line, a substantially solid high ferromagnetic-constant magnet (40) disposed longitudinally, slideably and reciprocally within the pumping chamber to act as a piston for driving hydraulic fluid within the pumping chamber in

response to signals from a batter/controller assembly; (ii) ~~b.~~ a fluid line (59, 60) having a first end and a second end, the first end of the fluid line being connected to and in fluid communication with an aperture in the first end cap and the second end of the fluid line being connected to and in fluid communication with an aperture in the second end cap, and the VAD being in fluid communication with the hydraulic pumping assembly at a point on the fluid line between the first end and the second end of the fluid line; (iii) ~~c.~~ a check valve (84) operatively connected in the fluid line between the connection of the first end of the fluid line and the second end of the fluid line to the first and second end caps respectively, and the fluid line being in fluid communication with the VAD, after the point of connection of the check valve and before the connection of the second end of the fluid valve and the second end cap of the pump cylinder; and (iv) ~~d.~~ a battery/controller assembly (65) operatively connected to the check valve and to the at least one electromagnetic coil to provide electric power and control signals to the pump, the battery controller assembly is capable of being placed in electrical communication with the native heart of the patient using the system, to thereby receive electronic information, including at least portions of ECG signals, blood pressure signals and/or blood volume signals, from the native heart.

54. (Original) The system of claim 53, wherein the entire device (58, 74) is of sufficiently small size and weight for placement in normal operative position between the valve annulus and the great vessels of the diseased ventricle of a patient using the device, to assist or replace the function of at least a portion of the diseased native heart.

55. (Currently amended) The system of claim 53, wherein the battery controller assembly and the hydraulic pump are of sufficiently small size and weight to be capable of being entirely contained within the abdominal cavity of the patient using the system and the VAD is of sufficiently small size and weight to be capable of being entirely contained within the chest cavity of the patient using the system, and the complete system, including all wires and hydraulic fluid lines, is capable of being entirely contained within the body of the patient, so that there is no part of the system extending exterior of the skin of a patient using the system when the system is in normal use position in the patient.

56. (Currently amended) A BI-VAD assembly to assist the function of both the right and left cardiac

ventricles simultaneously, the BI-VAD assembly comprising: a. a L-VAD, which can be disposed between the aortic valve and the aortic arch, to thereby permit blood to move from the left ventricle of the native heart through the aortic valve and into the L-VAD of a patient using the system, the L-VAD capable of pumping blood into the aortic arch; and b. a R-VAD, which can be disposed between the pulmonary valve and the bifurcation of the pulmonary trunk in normal use position in a patient using the BI-VAD, to thereby permit blood to move from the right ventricle of the patient through the pulmonary valve and into the R-VAD as the R-VAD, which, when deployed in a patient, pumps blood into the bifurcation of the pulmonary arteries of the patient.

57. (Currently amended) A BI-VAD assembly (77) to assist the function of both the right and left cardiac ventricles simultaneously, the BI-VAD assembly comprising: ~~a.~~ a L-VAD and a R-VAD; ~~b.~~ (a) the L-VAD being sized and shaped for positioning between the aortic valve and the aortic arch of the patient using the device; the L-VAD comprising: (i) ~~a.~~ a first magnet having an open center and formed of high ferromagnetic-constant material; (ii) ~~b.~~ a first vessel surrounding the first magnet and defining a space, when deployed in a patient, to be in fluid communication with the aortic arch of the patient using the device, the first magnet being movable within the first vessel in substantially fluid-tight relation thereto; (iii) ~~c.~~ a second magnet formed of high ferromagnetic-constant material and being in magnetic communication with the first magnet, so that the respective magnetic fluxes of the first magnet and the second magnet affect each other, so that the first magnet and the second magnet are biased toward and tend to lock to one another, to thereby move in the same direction as one another; (iv) ~~d.~~ a second vessel encasing the second magnet and defining a space, the second magnet being movable within the space in substantially fluid-tight relation to the second vessel, the space defined by the second vessel being in fluid communication with a hydraulic pump for actuating the second magnet; and (v) ~~e.~~ an one-way valve connected to the corresponding first magnet of the L-VAD, the one-way valve being movable with the first magnet of the L-VAD and closed when moving in a direction toward the aortic arch when the device is in normal use position in a patient using the device, to thereby cause blood of the patient to push through the aortic arch as the first magnet moves toward the aortic arch of the patient when the second magnet is actuated to move toward the aortic arch, the one-way valve in the L-VAD further being open when moving away from the aortic arch, to thereby permit blood of the patient to flow through the one-way valve of the L-VAD into the space defined by the first vessel when the second

magnet of the L-VAD is moved away from the aortic arch; and (b) ~~c.~~ the R-VAD being sized and shaped for positioning between the pulmonary valve and the bifurcation of the pulmonary trunk of the patient using the device and connected to the L-VAD; the R-VAD comprising: (i) ~~a.~~ a first magnet having an open center and formed of high ferromagnetic-constant material; (ii) ~~b.~~ a first vessel surrounding the first magnet and defining a space in fluid communication with the bifurcation of the pulmonary arteries of the patient using the device, the first magnet being movable within the first vessel in substantially fluid-tight relation thereto; (iii) ~~c.~~ a second magnet formed of high ferromagnetic-constant material and being in magnetic communication with the first magnet, so that the first magnet and the second magnet are biased toward and tend to lock to one another, to thereby move in the same direction as one another; (iv) ~~d.~~ a second vessel encasing the second magnet and defining a space, the second magnet being movable within the space in substantially fluid-tight relation to the second vessel, the space defined by the second vessel being in fluid communication with a hydraulic pump for actuating the second magnet; and (v) ~~e.~~ an one-way valve being movable with the first magnet of the R-VAD and, when deployed in a patient, closed when moving toward the bifurcation of the pulmonary arteries when the R-VAD is in normal use position in a patient using the assembly, to thereby cause blood of the patient to push through the bifurcation of the pulmonary arteries as the first magnet of the R-VAD moves toward such bifurcation when the second magnet of the R-VAD is actuated to move toward the bifurcation, the one-way valve of the R-VAD further being open when moving away from the bifurcation of the pulmonary arteries, to thereby permit blood of the patient to flow through the one-way valve of the R-VAD into the space defined by the first vessel when the second magnet of the R-VAD is moved away from the bifurcation of the pulmonary arteries, when deployed in a patient.

58. (Currently amended) A system for assisting cardiac ventricular function simultaneously when deployed in both diseased ventricles of the native heart of a patient using the system, the system comprising at least one hydraulic pumping assembly and two cardiac ventricular assist devices in fluid communication with the at least one hydraulic pumping assembly, wherein (a) the ventricular assist devices comprise: (i) ~~a.~~ a L-VAD, which, when deployed in the patient, can be disposed between the aortic valve and the aortic arch of the patient, to thereby permit blood to move from the left ventricle of the native heart through the aortic valve and into the L-VAD in a patient using the system, the L-VAD pumping blood into the aortic arch; and (ii) ~~b.~~ a R-VAD, which, when deployed

in the patient, can be disposed between the pulmonary valve and bifurcation of the pulmonary trunk in normal use position in a patient using the BI-VAD, to thereby permit blood to move from the right ventricle of the patient through the pulmonary valve and into the R-VAD as the R-VAD pumps blood into the bifurcation of the pulmonary arteries of the patient; and wherein (b) the at least one hydraulic pumping assembly comprises: (i) ~~a.~~ a hydraulic pump having: an encapsulated pumping chamber for retaining hydraulic fluid therein, the pumping chamber having opposed first and second ends; at least one electromagnetic coil surrounding the pumping chamber; and a substantially solid high ferromagnetic-constant magnet disposed longitudinally, slideably and reciprocally within the pumping chamber to act as a piston for driving hydraulic fluid within the pumping chamber in response to signals from a battery/controller assembly; (ii) ~~b.~~ a fluid line having a first end and a second end, the first end of the fluid line being connected to and in fluid communication with an the first end of the pumping chamber and the second end of the fluid line being connected to and in fluid communication with the second end of the pumping chamber, the L-VAD and the R-VAD being in fluid communication with the fluid line at a point on the fluid line after the point of connection of the check valve and before the connection of the second end of the fluid line and the second end pump chamber; and (iii) ~~c.~~ a battery/controller assembly operatively connected to the check valve and to the at least one electromagnetic coil to provide electric power and control signals to the pump, wherein the battery/controller assembly can be deployed to be in electrical communication with the native heart of the patient using the system, to thereby receive signals corresponding to physiological parameters from the native heart.

59. (Original) The system of claim 58, wherein the at least one hydraulic pumping assembly is two hydraulic pumping assemblies and the L-VAD and the R-VAD are each in fluid communication with a separate one of the two hydraulic pumping assemblies.

60. (Currently amended) A system for completely replacing cardiac ventricular function in a diseased native heart, the system comprising: ~~a.~~ a hydraulic pumping system; and ~~b.~~ a BI-VAD assembly having a L-VAD and a R-VAD, the L-VAD and the R-VAD having sufficient stroke volumes to supply the total cardiac blood flow output for the diseased native heart of a patient using the system, the L-VAD being capable of ~~disposed to~~ at least partly replacing ~~replace~~ the diseased left ventricle of the native heart of the patient and the R-VAD being capable of ~~disposed in normal~~

~~use position to~~ at least partly replacing ~~replace~~ the diseased right ventricle of the native heart of the patient, which, when deployed in the patient, ~~with~~ the inlet of the R-VAD capable of being grafted to an artificial heart valve and the outlet of the R-VAD capable of being grafted into the pulmonary trunk of the patient; wherein (a) the L-VAD comprises: (i) ~~a.~~ a first magnet having an open center and formed of high ferromagnetic-constant material; (ii) ~~b.~~ a first vessel surrounding the first magnet and defining a space in fluid communication with the aortic arch of the patient using the device, the first magnet being movable within the first vessel in substantially fluid-tight relation thereto;(iii) ~~c.~~ a second magnet formed of high ferromagnetic-constant material and being in magnetic communication with the first magnet, so that the first magnet and the second magnet are biased toward and tend to lock to one another, to thereby move in the same direction as one another; (iv) ~~d.~~ a second vessel encasing the second magnet and defining a space, the second magnet being movable within the space in substantially fluid-tight relation to the second vessel, the space defined by the second vessel being in fluid communication with a hydraulic pump for actuating the second magnet; and e. an one-way valve connected to the corresponding first magnet of the L-VAD , the one-way valve being movable with the first magnet of the L-VAD and closed when moving in a direction toward the aortic arch when the device is in normal use position in a patient using the device, when deployed in a patient, to be capable of causing ~~to thereby cause~~ blood of the patient to push through the aortic arch as the first magnet moves toward the aortic arch of the patient when the second magnet is actuated to move toward the aortic arch, the one-way valve in the L-VAD further being open when deployed in the patient and moving away from the aortic arch, to thereby permit blood of the patient to flow through the one-way valve of the L-VAD into the space defined by the first vessel when the second magnet of the L-VAD is moved away from the aortic arch; and wherein (b) the R-VAD comprises: (i) ~~a.~~ a first magnet having an open center and formed of high ferromagnetic-constant material; (ii) ~~b.~~ a first vessel surrounding the first magnet and defining a space when deployed in the patient to be in fluid communication with the bifurcation of the pulmonary arteries of the patient using the device, the first magnet being movable within the first vessel in substantially fluid-tight relation thereto; (iii) ~~c.~~ a second magnet formed of high ferromagnetic-constant material and being in magnetic communication with the first magnet, so that the respective magnetic fluxes of the first magnet and the second magnet affect each other, so that the first magnet and the second magnet are biased toward and tend to lock to one another, to thereby move in the same direction as one another; (iv) ~~d.~~ a second vessel encasing the second magnet and

defining a space, the second magnet being movable within the space in substantially fluid-tight relation to the second vessel, the space defined by the second vessel being in fluid communication with a hydraulic pump for actuating the second magnet; and (v) ~~e.~~ an one-way valve being movable with the first magnet of the R-VAD and closed when moving toward the bifurcation of the pulmonary arteries when the R-VAD is deployed in the patient and is in normal use position in a patient using the assembly, to thereby cause blood of the patient to push through the bifurcation of the pulmonary arteries as the first magnet of the R-VAD moves toward such bifuircation when the second magnet of the R-VAD is actuated to move toward the bifurcation, the one-way valve of the R-VAD further being open when moving away from the bifurcation of the pulmonary arteries, to thereby permit blood of the patient to flow through the one-way valve of the R-VAD into the space defined by the first vessel when the second magnet of the R-VAD is moved away from the bifurcation of the pulmonary arteries; wherein (c) the at least one hydraulic pumping assembly comprises: (i) ~~a.~~ a hydraulic pump having: an encapsulated pumping chamber for retaining hydraulic fluid therein, the pumping chamber having opposed first and second ends; at least one electromagnetic coil surrounding the pumping chamber; and a substantially solid high ferromagnetic-constant magnet disposed longitudinally, slideably and reciprocally within the pumping chamber to act as a piston for driving hydraulic fluid within the pumping chamber in response to signals from a battery/controller assembly; (ii) ~~b.~~ a fluid line having a first end and a second end, the first end of the fluid line being connected to and in fluid communication with an the first end of the pumping chamber and the second end of the fluid line being connected to and in fluid communication with the second end of the pumping chamber, the L-VAD and the R-VAD being in fluid communication with the fluid line at a point on the fluid line after the point of connection of the check valve and before the connection of the second end of the fluid line and the second end pump chamber; and (iii) ~~c.~~ a battery/controller assembly operatively connected to the check valve and to the at least one electromagnetic coil to provide electric power and control signals to the pump, the battery controller assembly capable of being in electrical communication with the native heart of the patient using the system, to thereby receive signals corresponding to physiological parameters from the native heart.

61. (Currently amended) A system for assisting cardiac ventricular function, the system comprising: a. a ventricular assist device (VAD) having: an open-centered magnet, at least one encapsulated

electromagnetic coil in magnetic communication with the open-centered magnet; to thereby drive the magnet; and a one-way valve connected to the open-centered magnet, wherein the one-way valve is ~~being~~ movable with the magnet such that the one-way valve is in an open position when moved in a first direction and in a closed position when moved in a second direction, and when deployed in a patient, is capable of causing ~~adapted to cause~~ in a pulsatile manner the movement of blood from the diseased ventricle to and into the great vessel associated with the diseased ventricle;

b. a battery/controller assembly operatively connected to the at least one electro-magnetic coil for energizing same and, when deployed in the patient is capable of being connected to the sino-atrial node of the patient when the system is in normal operative position in the patient to thereby provide signals to the VAD from the sino-atrial node to activate the at least one electromagnetic coil to optimally complement the function of the diseased ventricle of the patient's native heart.